## FEDERAL COMMUNICATIONS COMMISSION

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## PUBLIC SAFETY NATIONAL COORDINATION COMMITTEE

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### IMPLEMENTATION SUBCOMMITTEE

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THURSDAY MAY 30, 2002

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The Implementation Subcommittee met in the Commission Meeting Room, Federal Communications Commission, 445 12th Street, S.W., Washington, D.C. at 1:00 p.m., Edward Dempsey, Subcommittee Chair, presiding:

# MEMBERS PRESENT:

David Buchanan Steve Devine John Powell Robert Schlieman Michael Wilhelm Rich Murphy Jeanne Kowalski David Eierman Bob Speidel, Esq. Sean O'Hara John Oblak Carl Kain Glen Nash Tom Tolman Wayne Leland Norm Coltri Edward Dempsey

# MEMBERS PRESENT (continued):

Fred Griffin
David Funk
Bette Rinehart
David Pickeral

### P-R-O-C-E-E-D-I-N-G-S

1:07 p.m.

MR. DEMPSEY: This is the Implementation Subcommittee. There was an agenda out on the table. Just want to get the agenda approved in the matter of business. I don't think there is any problems with it. Any changes or objections. We are going to start with Dave Eierman. He is going to give us the latest on DTV update.

MR. EIERMAN: Okay, a lot has happened. I want to give you a little update on the auctions.

Let's start with auction 44, the easy one. The lower 700 megahertz which is channels 50 through 69 is still scheduled for June 19. However, last Friday, auction 31 for the upper 700 megahertz, which is what we are concerned with, the channels adjacent to the public safety, was delayed about another 7 months until January 14, 2003.

A lot of Congressional activity related to this. A bunch of bills introduced for delaying the auctions and some to hold the auctions. But basically the reasons cited by the FCC was the number of

outstanding technical issues and some of the must carry issues could still effect clearing of this band.

Some of it is probably related to the proposal to reorganize the 800 megahertz band which some of the proposals relate to placing some of those people into the 700 megahertz band or reorganizing parts of the 700 band. So that auction for our portion of the 700 band, the commercial portion has been delayed.

As far as band clearing, the FCC introduced an NPRM seeking comments on measures it should take to basically sanctions against the who fail broadcasters to meet their construction You now , there is some discussion about, deadlines. you know, there is a lot of people that have missed their deadlines and what should be done about.

And there are several proposals in this Notice of Proposal Rule Making. I think it is FCC02-150. About every six months, increasing the levels of sanctions against people who don't meet their construction deadlines.

That document also clarified that the four

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networked, the top four network affiliates which I think is ABC, NBC, CBS and Fox. In the top 30 markets have to be operating at full power. Should have been operating at full power, I quess, November a year and That there is some stations that are a half ago. allowed to operate at minimum facilities in the other markets, but the top 30 markets, the top four affiliates are supposed to be operating at full power.

Very little Canadian activity. They had NPRM out last year about opening up this band to land mobile. Been little or no activity on that. There is some discussion that later this year they may issue a time line for DTV migration in Canada.

Taskforce, Digital Television The no published activities that I can report. Again I already mentioned Congressional activity about the bills to delay and not delay the auctions. There was, last week, an amendment to the Bioterrorism bill. To allow some analog stations that had an application in in 1991 and hadn't received by sometime their allocation by 1997 when the list of DTV allocations For those stations to be able to apply and came out.

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go back and get a DTV allocation. As far as I can tell, it only affects a handful of stations. And possibly only two, one in Charolottsville, Virginia and one in Fredericksburg, Texas that even affect 700 megahertz.

And you know if you have seen the coverage interference plots or maps I have done before, I did not include those two stations on it. Because the assumption is that they would never be placed on the air. So have to go back and look at that to see whether they applied for stations or not.

Status report on the DTV transition.

There are some difference between what the national association of broadcasters reports and what the FCC reports. National Association of Broadcasters as of two weeks ago, said there were 410 DTV stations on the air in 125 television markets. That is out of 200 and some different television markets.

The FCC says there are 457 that have constructed and that are on the air. So there is some difference there. But, the issue is, it is still only about 1/4 of the total. And probably about 1/3 of the

ones that were supposed to be on the air by May 1st.

lot of stations, 909, asked for extensions, which is basically, you add 450 and 900 that is 1300 number of commercial stations. Only about half of those have granted extensions. Some were There are about 300 still pending and there denied. are even a few stations who never filed an application And there are some stations that for DTV station. didn't meet the May 1st date and didn't file for So the FCC page is being updated about So if you can go to the FCC Media once a month now. Web Site and look at the DTV application page, the information is there. Any questions?

MR. DEMPSEY: Thank you David. Tom Tolman is going to give us a report on the Funding Work Group.

MR. TOLMAN: Okay, the Funding Working Group, actually we have as Working Group 5, was 6, now 5. And we have mentioned this in previous meetings that we have taken a two prong approach. It is a two pronged effort.

One is focusing on the high level amounts

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of funding and we are all watching. And I say we, the public safety community. Including the NPSTC group and others are watching this Homeland Security Funding to 3.5 billion to support first respond. We know that there is language in there that talks about equipment and those types of things. And point here is that we will be closely monitoring that to see how and if in any way that that can find its way into the work we are doing if related at all possible.

Then the other, also that we will continue our partnership as we did in times past with the PSWN Group. That is, I don't know if Rick is here? He had to leave for a meeting. So that I could speak as proxy that the PSWN program has agreed to assist in developing some tangible documents and really getting out there and doing some real research over the summer with regard to the high level funding.

On the local level, the RPC or the Regional Planning Funding, I would like to ask David Funk, who is the data base administer for this CAPRAD data base and also responsible again through the NPTSC support office and oversight person for the Regional

Planning Funding. David?

MR. FUNK: Basically Tom, we concluded the 2001 RPC program. We have funded 29 RPC groups with \$2500.00 a piece. For a total of \$72,500.00 that has been in the hands of the Regional Planning groups. For the regional planning groups for 2002, there will be \$30,000.00 available which will fund 12 RPC's, which have not been funded before. We weren't able to secure funding that would allow second helpings to the original RPC's that have been funded. But 12 more will be funded during this year.

MR. DEMPSEY: Do you want to do the database?

MR. TOLMAN: Let's go ahead. Once again, one more time, we'll call our database administrator to the mic to give us an update on the databases.

MR. FUNK: Basically, we are considering the database in initial operating capability. We have actually proceeded with all of the functions and testing. We have actually loaded Dave Buchanan's plan into the database and we are playing with it. As soon as he gets me the actual data, we are actually going

to populate his states piece of the data base with the allocations that he put in his plan.

His plan is actually living out there now and we have had different people going in and testing and accessing and doing those kinds of things. We do have programmers working on finalizing the electronic batch formatting issues that still exist. And those are well under way. But those are in the licensing side of it. So we see no reason why we can't begin to roll out. And intend to begin the actual training in the database to regional planning committees very soon.

We are trying to time the roll out of that training to the availability of the regional planning guides and the actual documents that the printing of the manuals for the CAPRAD system that we want to hand to the people that come for the training. So we are anticipating that by the end of June or the middle of July, we will actually rolling out of the first training program and we'll have active users on the database doing planning and everybody being able to review Dave's plan by the middle of the summer.

1	MR. DEMPSEY: Great. Thanks David.
2	MR. TOLMAN: Thanks David.
3	MR. DEMPSEY: Since we started to talk a
4	little bit about the Regional plans through Dave's
5	little segway. I ask Bette Rinehard who has been
6	tracking the Regional Plans formations through our
7	implementation subcommittee. She is going to give an
8	update on where the Regional plans are and how they
9	are moving forward.
LO	MS. RINEHART: Okay, according to my
.1	records, there are 34 Regional Planning Committees
L2	have either formed or set a date for their first
L3	meeting. And of those, 12 were formed this year. So
4	this is really picking up speed. Four additional ones
5	have at least selected a convener, but haven't
L6	necessarily set a date yet. So that is 38 all
L7	together. And in one region has submitted its plan to
L8	the FCC and that is Region five.
L9	MR. DEMPSEY: Okay, Tom, back to you again
20	on the Regional Plan Guidebook.
21	MR. TOLMAN: Okay. In reference to the
2	RDC or the Guidebook that we have been talking about

A lot of work has taken place since we last met and most importantly we now have primarily through the efforts of the team that we have had. That is John Powell here.

We now have a near final, or we can call it final, version. And we have one document. Do we have a hard copy? Not here yet, but we will have a hard copy to present to Mr. Wilhelm and also to -- Do we have anything to present here? Okay I will have two hard copies here tomorrow and then we will also, we may have some CD-ROMs available too. So we are there and ready to deliver.

MR. DEMPSEY: From what I understand from talking to Tom and John to, is that they have got some really good ideas on how to keep this updated, how much I think we have discussed prior to this meeting, but, it might John, if you could just step up and talk about it. The Guidebook is obviously going to be a living document as pieces are updated, there has got to be a process that we can post updates to the NPSTC.

MR. POWELL: The plan is the Guidebook will come out and we are printing 125 of them Tom, I

think is what we have decided. So that each of the RPC chairs and each SIEC chair where there formed will get a copy of the guidebook in loose leaf form so that we can do updates to it.

There was significant discussion over the past few weeks within the implementation subcommittee that resulted in the re-writing of the Appendix. The very technical Appendix that Dave Eierman originally put together, incorporating some other ideas from some other people on different methodologies for doing coordination with regard to interference limited versus other alternatives.

And what we have decided to do is to leave that appendix as it was re-written and in a separate section of the book where we have alternative methodologies, we'll highlight some of the possibilities. For example, as this other California Region did with their plan. And also in that section we are going to include as we see these plans come in, some of the good ideas that are coming up out other plans, as an example, coming out of Northern California, the ability to at a Regional level have a

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Regional Plan Review Committee that has a couple of technical people who are authorized by the Committee between meetings to approve plans based on the applicant meeting all of the requirements of the committee.

So that they are not held up until the committee has the next full meeting to push that And there are some other ideas that are coming from other committees around the country or that were in the 800 NPSPAC plans. That are just I think for going to good material planning be committees to look at and get some ideas on some of the innovations we have seen around the country. Again, what we want to do is we'll post the new information or revisions to the NPSTC web site so that people can simply print them out and put them in the book as up dates occur.

MR. DEMPSEY: Thank you.

MR. DEVINE: Steve Devine, State of Missouri. One quick question. Has there been any discussion regarding the modifications of the plans living on the database will also be living documents

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1	and they are going to be changing pretty regularly as
2	well. Is Commission approval of the plans right now,
3	the process is probably considerably different than
4	what is going to be effective for the databases. Has
5	there been any discussions regarding approval to
6	changes to the documents that are residing on the
7	database and any mechanism for that. And I am really
8	asking David?
9	MR. FUNK: The database is designed so
10	that the documents that you submit, whatever is the
11	most recent, that is the one that will be the official
12	one. The Regional Planning chair as the authority to
13	submit that document. So if you put on up there in
14	PDF format, which is the standard file holding as your
15	final plan. If there are documents within your
16	Regional Plan that change, you simply change those
17	within your Regional Plan and submit the new document
18	PDF. The old one is taken out, archived and the new
19	one is in its place.
20	MR. DEVINE: My question was, does that
21	require FCC approval?

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we,

DEMPSEY:

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1	implementation subcommittee made some recommendations
2	which I don't think the FCC yet has come out with the
3	rulings on those recommendations. So
4	MR. DEVINE: Well the term living
5	document, reminded me not only are the RPC guidebook
6	going to be, but the plans themselves.
7	MR. DEMPSEY: We always intended for the
8	plans to be living documents as they are revised, the
9	updates will be put into the database as well as for
10	the old plan administrator to have a document that
11	changes for the needs. And we did address that in one
12	of the sections of recommendations.
13	We addressed that minor changes to the
14	plan be made without FCC approval. And that hasn't
15	been ruled on by the FCC yet.
16	MR. EIERMAN: I think we have discussed
17	minimum signal levels enough. Anybody want to touch
18	minimum signal level discussion again?
19	MR. DEMPSEY: It was on the Agenda.
20	MR. EIERMAN: Make sure it is taken care
21	of, we don't want to touch it again.
22	MR. DEMPSEY: One of the things to the, I

have to apologize. The agenda that we have here, I
sent the wrong one to Michael. There was a change in
the agenda and I should have brought that to our
attention earlier, but several meetings past and the
most recent meeting, we spent some time discussing, it
wasn't really a proposal by Fred, but it was a
discussion led by Fred Griffin on some kind of
national infrastructure for interoperability and in
talking on the list server and there has been some
exchanges about this. We thought we would spend a few
more minutes up date what Fred has dug up if anything.
As Michael's last request at the last meeting was to
go into this a little bit further. And then open up
some discussion on whether we should proceed or not.
Looking at this and making any recommendations to the
Steering Committee. So Fred, do you just want to give
a little recap of what we started and then we will
pick it up from there.

MR. GRIFFIN: Okay, I'll separate my comments into two parts, history and what has happened last meeting and I will take the second part first.

Nothing has transpired in our office or have I talked

to anybody about what was discussed at the last meeting other than I repeated it yesterday to NPSPAC.

And I would suggest that I repeat it again today for those of you who may not have been here at our last meeting.

And the last meeting of this committee followed the last PSWN meeting in Charleston. In Charleston, I saw two presentations that there was not discussion of but I just made an observation and I brought it into this meeting. One had to do with the state of North Carolina and the so called NCC Network. Which is the network that is formed, proprietary network based on Motorola Smart Net Systems. But the requirement as they saw it and explained it is that when they have an incident in state. And apparently there is some sort of conglomeration of people often happen near the beach. And I won't go further than that.

But anyway, when they have one of those situations, at the beach. They call appropriate support from across the state whether it be law enforcement, fire, or EMS. And their requirement this

that when they call for that particular person group of people, they come fully equipped. Which means they bring their radio with them. They want the radio to work from the time they leave t.hat. jurisdiction until wherever it is their going to. An if perhaps the battery is dead, they swap the battery out or the antenna gets broke on the portable, they change that.

Basically this is their concept for seamless communications interoperability consistency. That was on thing that was presented down there. The other, I think was the second time I have heard it and I have heard it twice since then, for those of you interested you can pull it off the Congressional record and it was also given at the last Notella Souder having do with meeting by Steve to situation here in COG and Pentagon situation.

And the situation in summary is after Air Florida, approximately 20 years ago now, COG decided they needed a common set of equipment seamless, mutual aid. And it hinged on two terms. One is called mutual aid, the other is called mutual resource. The

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concept at COG is that they want a mutual resource. Which means all the same equipment.

And as history has developed, Arlington for a competitive procurement. went out It was competitive, Motorola was selected as a vendor, system went in and all the other systems on a variety of reasons picked the same kind of equipment. So within COG you had the seamless interoperability situation which lay there in the planning stage until the Pentagon hit and then it showed its colors. since that time Steve announced down at Charleston is that the same concept has been spread now from North Baltimore to South of Washington, place, some probably COG. You have а seamless one vendor, proprietary, so you have basically a situation where you have a monopolistic situation, you got only one But it does provide the interoperability as vendor. they define it. That is what I kind of started the discussion with the last time at this meeting and where we left it when raised the issue of time and charter and I guess Michael has ruled we can talk about it because it now on the Agenda as part of our

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activities. So you can say what you want.

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I suggested that the term interoperability be better defined. And in the real world and as I see it from going conventions and clients. to to interoperability means full feature set. The other term, which I am suggested be added to the vocabulary or the glossary is interconnect ability. Which is the kind of thing you are talking on. Interoperability now where you have the conventional repeater. that is where we left it before we decided whether we should go further with it and for those of you who weren't here last time, the issue whether we could talk further was passed up to the Steering Committee who passed it off to Michael or interpretation of the FCC and my understanding is we can talk about it if we so choose.

MR. DEMPSEY: Any comments? Any discussion on this issue? And I think it is an issue that you know, interoperability, the interoperability subcommittee is dealing with as far as the standards go, and I think this is the issue which I had earlier conversations with John Powell about how Regional

interoperability is probably going to be the most important piece in the next couple of years because of incidents like the Pentagon and World the Trade And that should probably be a focus of the Centers. Agencies that are concerned about interoperable communications in that particular areas.

I think the discussion here is, and I will probably need a little bit of clarification, but you know, there is a couple of levels of how we do this, you know. Obviously it would take a ton of money and we discussed this the last time. A ton of money and years of development to build a network that would be nationwide. Even though the cellular carriers and other carriers have them already. But there is a different drive to get those systems built.

And to change subjects just real quick, as far as the definitions of interoperability and interconnectivity go, if we need to redefine those, they should be, I think we should bring them up possibly on the list server of the interoperability subcommittee and then by September, that issue could be resolved. One way or another whether we decide to

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change the definition or add definitions that would be up to you as a subcommittee.

But getting back to the issue, I think we have to get our hands around this as an issue. So we have to decide what the issue is here. Is it that out national subcommittee wants to recommend an infrastructure, national standards? And I think that is the hard part that I am dealing with it is what is it that we want to get out of this discussion. is making the recommendation to, as we discussed at the last meeting to pursue an national infrastructure, I think that is out of our purview. So I think it might not be a bad idea to get some discussion on what path we should follow, if any, on this issue.

And I think to a degree with MR. POWELL: what is going on in Congress, in within the Federal some funding for now with regards to Government is important from implementation systems. Ιt an look at it. standpoint to And since I don't see Harlan McEwan in the room, I just want to briefly summarize some of the activities that have been going on primarily spearheaded by three groups within both

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the administration and the Congress looking towards the potential for some funding, some major funding.

First of all, that group includes, by the way the police chiefs, the fire chiefs and APCO representing the management of the 911 dispatch centers. And they have in general, adopted a much simpler definition of interoperability than even his resident in the PSWN report. Which is what we adopted for the NCC. And it is the ability to talk to who I need to talk to when I need to talk to them. And it is not the ability to talk to everyone all the time.

Beyond that, they have established three levels of priority in looking at implementing systems.

And I think anyone from a management level or a public safety agency management level in this room is going to say that the first priority, I don't care whether I can talk to my neighbor or not. If I can't talk to my own people, I have got a problem.

So the first level of implementation for systems has got to be to provide the capability for agencies to talk to their own people on their own systems. And by the way, if we do that right with the

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appropriate standards and guidelines, they'll be building an interoperability base line into that system.

The second level as Ted just referred to as regional interoperability. After I can talk to my own people, I need to be able to talk to my neighbors on a regional basis. And by the way, if we build the appropriate guidelines into that, then we are setting the basics that we need for the third level which is national interoperability so that when we have a major incident, and I am not looking at so much the World Trade Center as I am what happens year in and year out across the country with the fires that we have in the And the hurricanes in the South and so on where west. we can bring those resources from neighboring states or from a whole group of states, potentially. And least. of minimum level  $\circ f$ they can at а interoperability.

In my opinion it does not mean you are bringing across all the feature sets. It means that we have the ability to talk back and forth. We do not have to have every single bell and whistle in that

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equipment working to have interoperability. It means that we have a basic level of communication. Now you can talk about up and down, what the level is, but at least we can communicate and that is data as well as voice. Although primarily today is voice.

In a nutshell, that is where the leadership of the lack of a better term, the first responders in this country. Again IACP representing the police chiefs. IAFC representing the fire and EMS services are coming from today.

MR. GRIFFIN: I have a piece of paper that has Motorola name on it. It was given out at the Motorola consultant seminar last week. It is not classified as proprietary in any manner. I would like to request of Motorola, this well prepared document, be somehow distributed someway or another. I am hesitant about handing out because it is Motorola's work.

But let me tell you the essence of it and why I think it is a great piece of work. It defines interoperability in terms of six levels. And at the consultant seminar there was much discussion when this

came up on the screen. But basically the first four levels are on interconnect ability so you can talk one way or the other. And the 5th and 6th levels are basically interoperability, the 5th level being a system where you can do roaming and so forth. But it may be on a vendor proprietary whatever. And the 6th level is in essence a Project 25 so you have a national standard.

But I think this a great document. I don't know who in Motorola generated or what group, but I think it ought to be put in the public domain.

But I am not going to do that.

MR. EIERMAN: Since I saw Chuck Jackson, give that presentation about three or four months ago, I assume chuck is going to be here tonight. I guess we can call Chuck and ask if that can be distributed or not. I can describe it to Chuck. I am pretty sure he knows what it is. -- Motorola. I was going to follow up on that with Chuck.

MR. GRIFFIN: I don't know the source of all the material. I just know the end product is a great product.

MR. EIERMAN: Well that is just a generic discussion of the different levels of interoperability and who can talk to who and that is defining it in the six different levels.

And the greatest part about MR. GRIFFIN: document is the first four levels in that consultant seminar knows 28 consultants, plus knows how many Motorola people in the room, about 30 people. The bottom four levels really are interconnect ability in one form or another. Fifth and sixth levels are interoperability and one is by default or whatever. For example, in Central Virginia you have interoperability, but proprietary to MA/COM because it is a MA/COM System. And likewise in COG, you have got interoperability but is propriety Motorola because they are Motorola's but 6 is the Project 25 interoperability. It is just a great talk document.

MR. BUCHANAN: Dave Buchanan, county of San Berdino. Just a question Fred. I get a little confused or not quite sure because when you talk about the interoperability and the COG system is it? And

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you say the equipment is the same so they can swap antennas and things like that, which implies that it propriety system, but then you be a mention that document Project 25 on as interoperability, but Project 25 doesn't define that all the equipment is the same that you can swap an antenna from one to the other, have it in stock. quess what I'm getting at is how you envision getting from if we had this system we would almost have to have standards that said this is how you have to make This is how you have to make antenna connectors. microphones and everything else beyond this equipment to operate on it. And then in some manner, that doesn't make it proprietary to one vendor or I don't think whatever flies. That kind of confuses me in this whole discussion. I think some of the concept is a good idea, but I am just not sure how you get there.

MR. SCHLIEMAN: I would like to make a comment. In Project 25, the statement of requirements attempted to do that with some of the accessories on a portable for instance so that the things that you plug on for a headset interfaces and programming boxes all

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that kind involving microphones all be the same connector so that it would not have to be unique to each particular radio. And that was, that didn't go very far. I mean it is in the SOR, but it didn't go anywhere.

MR. GRIFFIN: Can I reply?

MR. SCHLIEMAN: Yes, sure.

I didn't necessarily mean GRIFFIN: that all the hardware had to be interchangeable. that was the concept in the North Carolina Sun. I think the public safety people as a group, all three services want, is common resource capability which is all part of Steve Sounders presentation. And I don't want to steal his thunder, but I'll take this part of it. Why things worked as well as they did. And agree, they weren't perfect on the Pentagon thing. had procedures in place where thev there department, and I am going to give you bad numbers because I don't remember them.

Let's say they had 100 pieces of apparatus in the Arlington County Fire Department. When this happened, they were allowed on a common resource,

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command structure go from 100 pieces of apparatus to 400 because all the radios could talk to one another and they used the same language, the same Ids I was not in New York, but from what I whatever. understand from some the presentations in New York, they had urban rescue teams that came in and until they did something, they couldn't use them. Because they weren't at all compatible. And so if you had something, in the discussion last time before I suggested what public safety needed The public has a cellular what the public has now. system which is compatible nationwide. And what public safety needs is a dispatch system which is compatible nationwide. Not a replacement for what you got, you still need these proprietary or privately owned systems or regional systems, whatever you got.

And now I am taking thoughts from yesterday afternoon's meeting because I knew this was coming up. So these are not well thought out. But I think you have a physical situation to overlay a nationwide system in a sense the cellular towers are there and there designed on a service basis. The

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cellular people have the same motivation you have for different reasons. Say you, I don't mean you as an individual. But I am mean you as a public safety. They want the cellular phone to work in this room so they can make money when you use it. You want your portables to work in this room because if this guy had a heart attack you want to come help him.

The physical network is there. The towers are there. So we do a lot of tower siting consulting And I have yet to run into the situation where the tower people won't give you floor space, land space and tower space just for good public relations. I understand the side bar conversation that is true across the whole country except for the City of New York because things are so expensive there. But I think the physical thing is there. Also, you are going to need some sort of a network to know what the telephone number is to know whatever goes into it. is in think that network existence because cellular phone works.

I think the costs, and Michael asked me to present a cost here. And I didn't do anything on this

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basically the day before yesterday because I got told on a Friday night. I think the cost to put this up would be much less than people would expect. Because there is a lot to be gained by everybody. And I don't suggest that you start a vendor fight. There is enough vendor fights going on now. I do think it needs to be the 7-800 band megahertz some place. Because that is where people are going and there is where most of the urban systems are.

I also think personally and I hope that it is not cornered outside of this room, but I will say I think the State of Virginia, the it on the record. Virginia Commonwealth of is going in the They are going to go statewide VHF direction. spend boocoos of money. If this kind of concept was up they should be able to have something that works in Northern Virginia and the rest of Virginia if it is in the 800 band and on the tower. Right now, Virginia has got a bifurcated type requirements. In Norther Virginia they need to be where Northern Virginia is.

The rest of Virginia because of the area, they think it is cheaper to go VHF. You have an

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overlay system in the 800 band, the could probably build the rest of the state a lot cheaper than what they are doing now. Did I answer your question, confuse you or help you? Yes. I don't want to be an advocate of this, I think there is a need from observations.

MR. BUCHANAN: I think you answered it. I'll just throw out a couple more comments. some of what you want to has been going on in the west and particularly in California in the fire service that of course, is mainly VHF because that is where the forest service does their thing. Our California Division of Forestry is at VHF. But I do know all of the fire there, when you talk about interoperability and you talk more than just communications, a fire in southern California can truck go to California. They can use all the same hydrants. their stuff hooks up the same and all that kind of And they have defined a set of frequencies stuff. that should be in each VHF radio so that you will be able to talk when you get there.

You don't necessarily, you are not

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necessarily able to talk on your way up and get back messages to your own folks, at least when you get there you can talk to the people that are there. How you do that, what band you do it. I think you right, if it happened, it needs to be probably even I would say at the 700 band, there isn't at least in my area, there is no spectrum left at 800 that you could even carve it out there. But you could do it think with the mutual aid at 700.

Beyond that, I don't know that, I know in our county, we have a Motorola trunk system and we do the same sort of things that you are seeing in this area, for everybody, not just fire. But it is also police, EMS everything is on our system and everybody can talk to everybody else. And the radios happened to be similar because we are all getting from one vendor. But I don't at all think that that is a good way to go as you say, we don't want to get into vendor wars. And we certainly want the competition out there.

So I am not sure how to get it started or where it goes or just even how constructed is it. Is

it one or two channels of conventional use or is it envisioned as more or you know where it goes.

MR. GRIFFIN: I haven't thought it all out. I don't know, but I will give you a bunch of uncorrelated ideas. And I would encourage whatever this next inquiry coming out of the FCC is on interoperability they ask some of the right questions on the subject. It may or may not happen.

it is nationwide, it has got to be managed by somebody. I support John Powell, it should not be common carrier. I said it should be common carrier light, but it shouldn't be run by the common carrier's which leads to something maybe like Air Inc. Which non-profit organization is government sanctioned that meets the national need, but it is not in the hardware business. And it probably may or may not own that thing. I think whatever the method of communication should not be vendor proprietary. means that, I guess we have about four vendors in the market now not to mention names based on what has happened out in Phoenix. I mean you got Motorola and you got MA/COM and you have got E.F. Johnson and you

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got Kenwood. You basically got those four in the common market with some of us in the wings.

So whatever is done on this nationwide work alike, it should not be proprietary in any manner. And also I think the thing you have to face right now because of proprietariness of the systems, the price per point of communication is going over \$5,000.00 per copy. That is getting to be a lot of money to put on somebody's hip because there is no competition. The only possible competition is when you put your infrastructure in, but as soon as you buy your first site, you pay the freight, whatever it is. From any of the vendors. There are no good guys and bad guys when it comes to pricing. It is money.

This system may or may not serve a local clustered need. I don't know, I hadn't thought that through. What I thought through is the fact that when you have an incident, you need a common resource and we are not getting there. I also support Motorola's position described in the consultant seminar last week that standards are nice. But they slow down the process because of the way of going through the

process. I mean -- 25 started in 1991 or `-92, something like that with ship three systems. I mean it is ten years to get something going.

There is innovation. And as Motorola avidly points out, the life cycle of what we are dealing with is three to five years. In stands process is five to ten years. So to do something like we are talking about through a standards process and no one consults the TIA, you know it is not going to You are going to have some organization that manages this thing in someway or the other. Where the money is going to come from and maybe it comes from different sources, I think if the public safety, I quess I looked at NPSTC. If NPSTC came out with a position paper and says the nation needs this, would be figured out. I don't have all the answers. All I really see is that what is talked about this morning for interoperability in this room is not what worked Tuesday of this week when I looked in there regional system for interoperablity.

Because when you talk about, I live in a practical world. I don't live here in Washington. I

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live outside the beltway. But when you talk about interoperability and support on a regional basis, you are not talking about a conventional repeater. Ιt doesn't work. If you have a hurricane or a tornado, you need some sort of area coverage. And so the client, and I don't want to identify the client. we are sitting and working with on a regional system, know, you are not going to have just you conventional channel. We have to have something that across. Because the big problem with hurricane that went through there, was the public work trucks and the government trucks to get them in the right place quick enough to open the streets and get the trash out of the way.

I mean nobody had a gun and nothing was burning on fire. The problem was garbage. Number one when you have a hurricane or tornado. I am rambling, I hope nobody starts throwing things at me. I am going to shut up for a minute.

MR. DEMPSEY: I'll discuss, -- the Steering Committee meeting tomorrow so you can know what direction we should take.

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Under old business, we would like to take a couple of minutes to talk about the national planning oversight committee. Something that we had suggested in our report last year, which NPSTC has taken a step further and Tom will take us there.

MR. TOLMAN: I just wanted to bring it up It has been a while since we last one more time. talked about this. This recommendation number 3. was presented of May of last year, exactly a year ago And recall that in that recommendation there discussion of assembling what would and proposed to be a five member team and essentially two Serving as an arbitrator between regions parts to it. and bordering region areas, handling regional area disputes over frequency assignments. The applications and the rank and order that they are in. The lack of spectrum form both regions if it comes to that.

And the second part was the monitoring capability. That is were monitoring services among this group that the RPC process reports as the reports are being processed and any documents are being processed. We didn't really, we brought this up, but

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this was brought up at the last NPTSC governing board meeting in January of this year brought it before the governing board to see if that was something that they felt fell within their purview. And NPSTC functions in the same similar capacity as here decisions by consensus.

The consensus was, that yes, this is a function or capability that the NPTSC group, however that shapes out or forms out, whoever members are, that five member committee. offer in again NPSTC would some capacity the capability to to this. It is kind of an overlap. We still think this is a tool, again and would work in conjunction with the information tools and database. And it has been a while since we last talked about it, I just wanted to bring it up one more time to see if there was any comments on that.

MR. DEMPSEY: Obviously our subcommittee feels strongly we made the recommendation that the continue that there be some type of oversight with the national plans and coordination. And it does sound like a very good idea to keep it in with NPSTC since

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they are going to be managing the database.

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And at least it is function that will stay within the same group if they, if the database administrator needs to talk to someone for a regional plan or chairman, the resources are all there to get that person to discuss the plan and to work it. So, I guess part of I guess going forward the remainder of our subcommittee, we will probably pursue that and make another recommendation.

is about think that it under old Under new business what I would like to do business. is spend a few minutes discussing the first plan submitted to the FCC. Region five, Dave Buchanan's region has submitted a plan to the FCC and to quote Dick Dimboola from a couple of years ago, you know they are the first one in, the win. They are able to now, number one, they are going to be first to get picked on.

Number two, everybody else in that particular area now has to coordinate and plan to their plan once accepted by the FCC. So some of the things as we, the implementation subcommittee some

questions that we would like to get answered really partially from the FCC is what is the process going to be now that Region five has submitted their plan. And that is basically an e-mail that I had sent you. Can we get, I am sure Dave is anxious what type of time line there is and we would be willing to work with you on that. We have put together a time line document based on what we put forward in our report of a year ago.

well as а regional plan element So I will forward these to you after the checklist. Steering committee. Or really, I guess assistance in this process if you would like. We would be more than willing to work with the FCC in reviewing the first You know if you take an effort from us to it plan. separately and you guys would be more than happy to do And there are probably going to be a couple of questions I am sure that we are going have regarding you plan and how it was put together and how it was So I have asked Dave to give us a couple of filed. minutes on what they did, why the did it and then I will open up the floor to some questions.

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MR. BUCHANAN: Well basically, everyone in my region was eager to get started even though we have a lot of issues with television stations out there.

Keeping us from actually implementing systems.

Particularly the state the of California, they are trying to plan for a statewide system and there are areas of the state that they can implement that aren't blocked by tv stations. But they can't do it unless the plans are in place.

Given all of that and just the fact that we are kind of active in all that stuff and always looking for a new spectrum anyway. We got started and worked through our plan. I know one of the issues that has been questioned is why didn't we use the national database or the packing for the national Basically, we support the database, database. think it is very important. I have already, as Dave Funk mentioned, we sent him our plan. There was some confusion about how get the information to actually populate the database with the frequencies and who is allocated to him. But I think we have worked that out and I will get that information to

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However, we have a lot of experience based on our 800 planning and going way back in history as to what works and what doesn't work and who can share with who. And based on that, we thought it would be, would could get better re-use just by hand packing ourselves. So that is the direction we took. And I think if you look at the plan, you will find that there is a lot of sharing of Agencies who borders are fairly close together, but we think we, based on our experience, at 800 megahertz, we think we can make that work.

As far as the border to, Arizona I just getting started. I don't, I haven't heard anything out of Nevada. I am not sure where they are ate. Northern California just had meeting. So there is really nothing to coordinate on the borders. The other, probably the only thing that we are fortunate spectrum in southern California is that our on in border areas are the least populated areas of the whole region. So it is not all that much of an issue our there as to sharing with the other two states,

Arizona and Nevada. And also on the north, sharing with Northern California. So for us, and we put language in the plan that said so. We are very flexible. We will work those states and even though there, is for instance, there is 60 channels allocated to my county, San Bernardino. I don't need 60 channels along the Colorado River. I may not need but one or two out there in the future.

So that really isn't an issue, so that is probably the other reason we didn't worry to much about having the national database packet for us. can work around what ever comes out of the other And we have had good experience working with regions. the other three Regions in that regard. So we are not too worried about that. Beyond that, I don't know any other specific things that you would like to know We did try, we did look at the criteria that about. is posted on the FCC's web page and try to meet all of We did not at this time address the wide band data allocations because we just don't have enough information particularly loading for on those channels. How many units. What type of data

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We are also kind of overwhelmed with, as I stated before about 700 if you break it down for requests for 50 kilohertz channels, there is about 700 There is only 18 or so that are allocated of them. for general use. We would still like the FCC to break loose the reserve channel so that they can be considered all at the same time.

But we are also meeting in June to go over some of the wide band data and we have some ideas of how to resolve all of this and we will see how this I think the other thing with comes out as we meet. Southern California is that we have had a long, long history with working together. With coming up with ways to share spectrum. I mean we did some plans when a tv channel 16 was allocated to public safety in the There was a local plan done for that that L.A. area. held together, I don't think it is officially sanctioned by the FCC, but we just put it together and all of our people voluntarily go by it. I guess that is why we think this can work they was it does? Questions?

MR. SCHLIEMAN: Dave, Bob Schlieman. When you did your channel packing for the narrow band spectrum, what channel were you working with?

MR. BUCHANAN: We actually allocated on the basis of 25 kilohertz at a time. But a given agency came to us and said, we need whatever it might be, we went back and tried to get validation as best we could, justification on why they needed that many channels. That turned into one channel per six and a quarter of kilohertz of band width. figured since we are held up by the tv issue that we might was well go ahead and allocate based on the assumption that the technology will be there in the In keeping with the spirit future to do that. trying to allocate so that any technology could be used, we used 25 kilohertz blocks to each agency. some cases meant that somebody got rounded up by a couple of extra channels, but for the main part, it is based on six and a quarter per voice channel.

It was also for data because there was a lot of mobile data asked for. It was based on a mobile channel per 12.5 kilohertz. We assumed that we

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2	future.
3	MR. SCHLIEMAN: In the 6.25 kilohertz
4	channel loading that was what, 100 units per 6.25?
5	MR. BUCHANAN: Yes.
6	MR. SCHLIEMAN: But you were actual
7	allotting them on the basis of 25 kilohertz blocks?
8	MR. BUCHANAN: Right.
9	MR. SCHLIEMAN: Okay, thanks.
LO	MR. TOLMAN: I have a question Dave. Did
L1	you do anything unique in your plan, being first I
L2	guess you guys had the opportunity to be the example
L3	or the model of the unique integracies with dealing
L4	with the border, the Mexican border. Is there
L5	anything unique in your plan that you have thought out
L6	in preparatory? I know that some respects is all you
L7	can do is all you can do and that is going to be a big
L8	one. But for those areas that are actually right down
L9	to the border and will indeed be subject to
20	interferences, is there anything unique in your plan
21	to prepare for that?

could get 19.2 kilobit into a 12.5 channel in the

MR. BUCHANAN: Well, the is a tough one.

Probably the only thing we did and that was based on
some of the experience before we went through at 800.
The other thing on allocating blocks, there generally
blocks of what would it be, 250 kilohertz or there
about, whatever fit in between the, band is broken up
between state allocations and interoperability in that
it made some different walking kind of naturally fall
out of that. So the agencies, all of the agencies are
assigned on that basis. It is a 25 kilohertz
interlead by another 25 kilohertz. It is a pretty big
chunk. So it would be easy to take and say this
spectrum is Mexico spectrum and this spectrum is U.S.
spectrum based on our plan. We can also move the
blocks around if we need to to accommodate that.
Beyond that, we are just kind of waiting and hoping
that the FCC will show some interest in working with
Mexico and get that worked out. Because we are not
assured down here that there are tv stations to block
us. We don't know anything about heat and it is a big
concern to San Diego County and San Diego City. Both
of them need the spectrum. They can both show you the
growth down there is unbelievable. And they are going

to need the spectrum in the future..

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MR. DEMPSEY: I think one question that comes to mind from is, because you did your own packet, and you were one of the first people to talk about the fact that this allocation of spectrum will satisfy your immediate requirements. So when you finished your packing, what was left over?

MR. BUCHANAN: There was nothing over. As a matter of fact, part of the plan, we had about five agencies with they need spectrum. needed it for years for police type operations and one of the things we ended up having to do to make it all work is this, we told them to go talk to Los Angeles County Sheriff and the L.A. County Sheriff is in the process of putting together a new system. I think some of their direction is trending. I don't want to speak for them, but I think they are going to a trunk type system where they can handle other agencies on it. And so our plan says you go there, try to work out a deal with L.A. County. The County agreed to this. If that doesn't happen, the we have told them you can come back to the 700 meg committee and will

take spectrum away from LA. County to make this work.

So there is carrot and a stick and all that stuff.

But no, there is absolutely no spectrum left over.

And we had everyone, we asked them a set of questions to validate their requests that it was real and it wasn't overblown and everyone came back with good justifications for what they asked for. It is mainly growth in the future. But the systems that are in place now, the 800 meg spectrum that was given out, it has all been implemented. Really, the last ones to go on line has been Orange County and they're going on line with the system essentially full, and there is a lot of people that would like to I think go on, they have had requests to go on their system, but they can't fulfill them until they can see, how much, if any capacity they are going to have left over.

So we know we are going to need this spectrum in the future and we know in the near future to. But, obviously that may not be because of the tv stations. So no, there is nothing left over. And in wide band data, I can guarantee you there won't be anything left over we will still be scrambling.

MR. DEMPSEY: Any other question for Dave?

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MR. TOLMAN: Steve?

4 MR. DEVINE:

Steve Devine from Missouri.

I just got another desperate view from Missouri which is just about the opposite of everything Dave said. have a question about his mechanism he is going to develop of or at least anticipate when the time comes for give back. I have been looking at some of the scenario's and once it is approved and went to commission, I really had no more authority to as to even looked at accepting a letter and saying at the time we agree upon, I am going to mail this. your license is going to be canceled and I can make that spectrum free for other people. But the mechanism for give back is something that needs to be at least addressed probably at the local level it will be solved. But in Missouri, our plan for the most part done. We are waiting on some type of a packing program at least to view it from the database. with the exception of an adjacent channel in Kansas Historically we haven't had good relationships

degree with two of our our aid adjacent Our border areas unfortunately are the most states. Not the populated areas in the state. least populated. And of course population diversity, have 115 counties and 75% live in 25 of them. Kansas City and St. Louis area fortunately international borders. So where plan wise, we well on our way, but we are waiting to see what the results of the packing program and then we will go from there. But it should be to long after that.

MR. BUCHANAN: This is the first time that somebody has worse problems than me. That is great. the questions on give back, this time answer around, we looked at it and there is really nobody that has anything to give back essentially. Because it is going to be additions to there existing systems. It is not new type large, new type systems, where there are some frequencies to give back. We did in our 800 plan we had a lot of give back frequencies. And in fact, locally, we We have kept after them. have formed what we call a give up committee that is actually still in existence. And any of the channels

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that come back go -- requests to get those allocated to them, went through he committee. Now this is something I supposes some the agencies wanted to go straight to a coordinator and to the commission. The could have done it. But everyone has been very cooperative in working through the committee making sure that what they wanted is compatible and that we could pack that the best we could. And that has worked out well for us. But it only worked out because everyone cooperates.

And there is language in our 800 plan that they have to give back frequencies and everyone has been pretty good about doing that. Some of them took a while, obviously Orange County because they got delayed with Bankruptcy and a lot of thing, they are just now able to start giving back the channels and letting other people use. But they did let people actually license on those channels under the agreement that they wouldn't come on the air until Orange County can do it. That is the best I can tell you on that Steve.

MR. DEMPSEY: You know, I think because we

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are such strong proponents of the data base, I heard some questions about you know, why you didn't use the data base. I think your packing explanation, and there is two parts to the question because the data base and the packing are really two separate entities.

The packing is essentially in the case when Steve talks about the state of Missouri, they are going to use the packing because it is a good way for them to do their allocations. In your case --

MR. DEVINE: We are going to base our decision after we see it for yourself.

You know, I think we had MR. BUCHANAN: requests and they were legitimate requests for channels and they were from specific agencies. And they are not from, they are not uniformed throughout For instance, we had no requests from the region. several counties, Kern County, Santa Barbara, Louis, Abysbo, those folks, they are just not at the point where they can care about any immediate allocation. That is not to say that we still look at them and we can help them in the future when they need But we did have, as always, our requests are from

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that L.A. Basin area that includes L.A. County, Orange County, San Bernardino and Riverside Counties, Ventura and then of course your San Diego County and City. And based on all that that is what really drove us because we knew as I said from past experience, what would work, what wouldn't and how we can actually pack things closer together that typically you don't get even looking at some terrain based packing. So that drove it.

Also the program wasn't ready and you know However, as I say, we are going to put at that time. our data in and the data base we will use and we think that is very important. And we want to have that, in fact we think that is a good tool to protect everybody from mistakes. Because we did have one, I can tell you one instance that we worked out with Arizona, but their they did 800 plan, they submitted allocation to us. We signed off on that. They sent the whole thing in to the FCC, but the FCC because they didn't use that one program that was being used at the time back then, made them go back and redo it. And when it got redone, it didn't get re-coordinated

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and there ended up some conflicts and we had to work So as I see it, that data base is going to don't important so that we have those conflicts on the border. And also so we can keep Because it is real hard with the 800 plans to keep track of the changes on the border, you just don't know. This way you can just go in there and and make sure you not doing something are contrary.

MR. DEMPSEY: Well, I think your plan being the first in that area too, now everyone has to coordinate with you. And I don't mean it in the, trying to be first on the block. But in a sense, you sent your plan in motion and if it is approved before Northern California or Arizona or now the coordination becomes an issue of they have to use the data base to look at the data base and see where they can put --

MR. BUCHANAN: Exactly.

MR. DEVINE: One of the benefits of the packing program was there was the potential based on some of the statistics in the PSWAC use curve and populations census data, etc. That they might

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insulate areas that are slow in developing and there might be some insulation there to preserve it in St. example, the 800 allocation, 800 Louis. For allotment -- Missouri has 3/4 the population and 1/4 the Metropolitan St. Louis the in spectrum because they were last. So, just to avoid that, I don't want to be on the first side of that. want to be on the good side of that, but if it was done proportionally, it would be effective and more efficient. So that is what is lacking and if packing program as the ability to insulate some area that might be slow in developing, I am all for that.

MR. DEMPSEY: One more question. Since you had real requests. It wasn't an issue where you were going to pack this and they were going to be an allotment for a couple of the counties that mentioned that just don't have an interest. How are they protected in your plan? Or I shouldn't protected because that is not a good terminology to How were they included in your plan use in this case. and you started to talk about that. You know, they are not interested in spectrum right now, but they are

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going to come back to you in two or three years when 1 2 things change or maybe longer than that and say, hey 3 guys we need some spectrum. I am trying to keep the two 4 MR. BUCHANAN: 5 separate, you know the differences. plans I am not 6 sure this time if we actually put in a specific 7 allocation, I know in the 800 we did. But there are 8 counties that again are the border, on 9 traditionally there is just no way that the population is sparse enough on both sides of the border that 10 11 there is no way that there wouldn't be spectrum left that is useable in those counties. 12 13 I think in the case of what Steve was 14 saying is that he had a big population base that had 15 to come along last and try to get something that 16 In this case, it is going to be there wasn't there. 17 they just need to come and ask for it. 18 MR. DEMPSEY: So their allotments --By default if nothing else. 19 MR. BUCHANAN: 20 Also the plan, our plan and the way we do it as far 21 as future requests, anyone that wants to come in later

and ask for an allotment can do so. All they have to

1	do is come in and show that they won't interfere with
2	the other folks that and co- and adjacent channel on
3	those plans and they have the whole mechanism set up
4	in that. So you can grow to, where you can fit it in.
5	And that, again, is based on the way that
6	we have been pretty successful in the 800 plan of
7	doing it. So it is not a case of you have to come and
8	break down barriers to get in. You just come and ask
9	us at any time. It is not where we are opening
10	windows or anything else.
11	MR. MURPHY: You're right.
12	MR. SCHLIEMAN: Could have given a shorter
13	answer and said nope.
14	MR. MURPHY: Seriously, we don't have an
15	answer to that question.
16	MR. DEMPSEY: I guess we could talk about
17	tomorrow at the Steering Committee meeting. And maybe
18	more formalize something for the Steering Committee.
19	MR. DEMPSEY: Bob brought up that one of
20	the items that we discussed earlier was making a
21	recommendation for NPSTC to pursue the planning
22	oversight committee issue. And I guess we should get

1	consensus at the meeting that is something we should
2	recommend forward to the Steering Committee. Spend a
3	brief moment getting consensus.
4	MR. DEVINE: Two quick questions. I want
5	to ask Dave, was his application submitted
6	electronically?
7	MR. BUCHANAN: Yes.
8	MR. DEVINE: Okay, and is that going to be
9	a mechanism fro which we are going to be capable of
10	submitting our plans, I should say, electronically?
11	There will be a mechanism for that, is that safe to
12	say?
13	MR. DEMPSEY: I'm not
14	MR. DEVINE: If this all ties into the
15	data base and the Regional Plan residing on the data
16	base and if there is a mechanism for it to reside
17	there and be modified and that to be part of the
18	submission process that also might expedite things
19	like we discussed earlier. So I don't know whether
20	MR. DEMPSEY: Is that meaning submission
21	to the FCC?
22	MR. DEVINE: Well, if the criteria that

1	the plan has to be approved when it has been changed,
2	I know we discussed minor changes that might not
3	require complete submission, but if electronic
4	submission is an option, it might be able to come as
5	.pdf or whatever format David is working in. It might
6	be something that might be an option as well, so.
7	MR. DEMPSEY: And maybe I am just missing
8	something. An option to submit the plan the FCC or to
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10	MR. DEVINE: If the plan is changed on the
11	data base
12	MR. DEMPSEY: Correct.
13	MR. DEVINE: Then the plan has to be
14	submitted to the FCC and it can be submitted
15	electronically?
16	MR. DEMPSEY: Yes.
17	MR. DEVINE: Can it be submitted from the
18	data base to the FCC?
19	MR. SCHLIEMAN: I think the plan isn't
20	official until it is accepted by the Commission. At
21	that point, you can submit it to the data base as
22	being the plan.

MR. DEVINE: I see, okay. Approval before submission to the data base?

MR. SCHLIEMAN: Yes.

One other question, I would MR. DEVINE: in mentioning it. be remiss The state license spectrum currently the data base will hold locations for the state license spectrum. However, there is no methodology proposed to coordinate interstate between that. That has been basically left up to the states to work out, having 8 of them, I have more concern than most for that perhaps. But I would like to make sure that the implementation committee is aware of the fact that the state license spectrum right now has no mechanism within the data base, although it will hold information, certainly no mechanism for a coordination on an interstate basis.

MR. SCHLIEMAN: I might comment that in New York State we are faced with a similar problem, not quite as great a magnitude. All though we have some very close boundaries between adjacent states. And we are trying to work our a plan that equitably shares the spectrum considering the tv situation and

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1	everything else. I suggest that maybe we ought to
2	work together to polish that a little bit and present
3	it at the next meeting.
4	MR. DEVINE: Once again, with the
5	geographic nature of those channels, if there was
6	method for me to insulate Missouri and Kansas once
7	they get a certain distance within Kansas, they can do
8	what they like as far as I am concerned.
9	MR. SCHLIEMAN: That is exactly right.
10	That is the way we are playing it. It is just the
11	border area.
12	MR. COLTRI: I am a little confused. If
13	the plan doesn't get posted onto the data base until
14	after it is approved by the FCC, how do other regions
15	who are in the stage of developing their plan and they
16	are adjacent, have the latest information about what
17	their neighbors are doing.
18	MR. TOLMAN: Please come to the mic Dave.
19	MR. FUNK: The approved plan, its final
20	format, it is done in .pdf and that is the on the FCC
21	has approved and is finally there. The data base will
22	allow the RPC chair to post whatever plans in progress

or whatever status he wants to. The data base will actually accept documents posted up for review by Regional Planning Committees from all over the country in either a word type format or a .pdf. And we anticipate that if you are posting one in a .pdf format that you don't want changed, that people would That it would be marked, interim be able to look at. plan or something of that nature. Certainly the final plan once approved by the FCC, that plan will stay there. We have the ability of locking that plan as this is Colorado's plan. That is the one that will live out there until we get some official word that that plan has been changed. At which time we can open that to having that RPC chair be able to go in and submit that new and approved FCC plan.

But the process is there that you can actually put in .pdf files. You can put in word documents for manipulation and people can actually download those, look at them, change them and depending on the status of you as a user, whether you are the RPC chair having the final authority, your if have designated others within your regional

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planning group as regional planners, they may have the authority to upload documents to that working file if you will and so the data base will facilitate that very nicely for those planning reviews.

MR. O'HARA: Steve Devine asked a question, earlier. I am not sure I made it all the way through to the answer on it. So I will ask it again. If once the initial plan as been accepted by the FCC and it goes into the data base. A year down the road the plan gets major modifications to it, could that plan be submitted to the FCC through the data base or what vehicle would you want to see for re-submission of that plan?

Well right now, if you are MR. DEMPSEY: talking about а major modification. Major modification is going to have to go through the FCC before it can come to the data base. So before any change, I mean in this case, I think the data base as the ability to put an interim plan in there. I am not sure though if you would be able to post changes to the plan, and Dave you will have to clarify that for In other words, your plan is approved, it is out

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there Sean, now six months go by there is going to be a modification.

Well that modification at this present time is going to have to be approved by the FCC. So, something that Dave should talk about I guess is can that proposed modification be placed on, and I think it can, because we had a lot of discussion about this. If there is a proposed modification to the plan, it can be posted for comment in the databases, I guess the best way to describe it. But before it becomes the plan, or the modification is approved, the FCC is going to have approve that modification. Especially when you use that word major modification.

FUNK: MR. The concept of the plan submittal to the FCC comes from the RPC. The data built with kind base is not any of automated submission process from the planning site to the FCC. So the concept again, is that the RPC prepares that document, they can post it on the data base for review and comments and all of the kinds of facilitating suggested changes. If we were at the point it can be posted out there in word document formats. They can

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be reviewed and changed and altered and then when those are taken, the RPC chair submits those to the FCC in whatever fashion it is defined to do that. Ιf in actual hard copy format or if it is it is electronic, obviously that facilitates the whole process.

When those have been approved, the RPC chair is apprised of that by the FCC. He can go in and post those approved plans back to the data base. Only the RPC chair for the given region can actually post that final plan out to the data base. And once that is done, that again then becomes the new final plan. And it is locked until such another exchange might happen.

MR. FUNK: I think that the other thing to, is that since this is not mandatory, the use of the data base is not mandatory, there really is no mechanism for us to force a region to forward interim plans, changes of plans, modifications. There is nothing we can do to force, we are actually relying on the fact that Dave's relationship with Northern California, would say, if you post yours and I post

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mine, we can work together and we can work together with Arizona. The issue that we have always been concerned about is that if Arizona doesn't want to play in the sandbox --

We're also relying on the TOLMAN: MR. commitments from that we have had each of the coordinators. The four coordinators have given their assurance at this stage and at this juncture the enforcement, if you will, or the process will pass through and must past through one of the coordinators.

Also, as a reminder in this three year process to get to this point, every step of the way this thing has been built according to the four coordinators and the key regional planning committee membership that was served as the advisory group. So, once again it isn't anybody going off and building anything in a direction that wasn't in compliance with the four coordinators and the regional planning development team.

MR. DEMPSEY: And I think the way we wrote the guidelines it forces, obviously coordination with

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the other regions. So you have got show what level of coordination you did with the other regions. And I think the only way, the most efficient way is to do it is through the use of the data base.

Ted you brought up MR. PICKERAL: excellent point, in terms of of news items that I am going to insert in here since the last NCC meeting. As you recall last year, both the Pisman Program and John Powell individually filed petitions for reconsideration for the fourth report and order which the commission said it would not mandate use of Since that time, the data base. I believe I was February or March the commission has come out with an MO&O and I won't paraphrase or editorialize on it. is out there to look at on WC docket 96-86. Again reaffirming that it is not at least at this juncture going to mandate use of that data base. So right now they are kind of still apples and oranges. There is submittance and there is a data base but there are not officially or technically linked in anyway.

MR. DEMPSEY: But I think the way to just kind of conclude on that to help this point along. Is

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that the ways the guidelines have been written, it is strong enough to sort of those plans have to be out there in the data base. They have to be coordinated with the other regions and the border regions. So even though it is not mandatory, I still believe it should be mandatory, I think it is still strong enough where the FCC looks at that plan and sees that there was no coordination between Southern California and Arizona, that they have every opportunity now to reject that plan. Whether it is Dave' plan that they reject or Arizona.

In this case, I mean, again, going back to Dick Dimboola's theory of you are the first one in, everyone has to coordinate to Dave's plan. But speaking to Dave to, that there is, he is going to have to work with them to get this approved. It is not the most ideal way that we had wanted it to work, but I think it is better than what we would of had had we not had a database.

MR. BUCHANAN: Just follow up. That is exactly correct and or plan specifically said in it that we will work with the other regions and that we

were using the data base. So that is the two things we put in there. But you are right, under the FCC rules, technically I guess you don't have to. But we don't see that gains us anything not to. It is far better to play in the sandbox with everybody else.

MR. DEMPSEY: Forgive me Don.

MR. EIERMAN: We have a couple of other issues that --

MR. DEMPSEY: Comment --

MR. GRIFFIN: It has been brought to my attention in this planning process and it hasn't come up in this committee meeting so, maybe everybody knows but if you look at the curve on spectrum efficiency and trunking. The more channels you can put together in the system, the more efficient, the more through put you can get through. For example, three five channel systems can only have so much through put, So much traffic. A 15 channel system as one system will put more through put rather compared to the three. And following that logic, when you do your planning and I am not sure this is in the guidebook, because it hasn't been discussed here, if

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1	you look at the standard metropolitan districts, and
2	kind of steal a little bit from the what the FCC did
3	on the cellular allocations
4	But I think what we really can go back to the
5	Commission right now and say hey, there may not be
6	much preliminary indication, there might not be much
7	advantage, but we think there needs to be more
8	analysis and offer that we would do this from TIA
9	standpoint.
10	MR. NASH: Wayne, is that something TIA is
11	willing to take on?
12	MR. LELAND: We've got the right people
13	here. We have got John and I am sure that we would
14	take that on. Because, you know Bob is right, it is
15	not a simple do A and everything gets solved. That
16	has come up here. It is a balance of several
17	parameters. And it is all of those trade offs and you
18	have got to come to the right
19	You may want to for this meeting to take
20	Bob's suggestion and ask that TIA look at this and get
21	back to you before the next NCC meeting. Which is
22	when, next September? Which I think we should be able

to do. Everybody nodding their head. Otherwise I get my hammer out and I beat them. And secondly, you may want to, or maybe you don't, but you may want to say raising the noise, raising the desired signal level may be a that should be left on the table as an option for system designers, pending what TIA comes out with.

You may also want to strongly endorse, limiting out of band emissions by whoever wins the I mean that is the net we auction in that spectrum. believe that is the -- cause. These other things are defensive. Given that that rit cause is going to take place, what can you do. Well you can design nil receivers then you don't get cross band, you don't get 806 coupled with 746 radios. And you can raise the signal strength which you get all these other problems. But the root cause the potential interference from out of band emissions of the auction winners in the adjacent 700 MHZ spectrum.

MR. NASH: Now earlier, I heard a suggestion that we perhaps have a Region A, Region B standard. You now, urban/suburban rural somehow, you know separation between the two. Because I will admit

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in trying to deign the suburban rural type systems. Having to design it for higher signal levels is going have a significant cost impact on the number of sites that would have to be implemented and the potential problems of not being able to implement the additional sites because of other concerns that you get into, but Mike brings up that we chastised Michael yesterday by All of another one of your cohorts. requirements with the FCC is putting on us also. MR. LELAND: We can look at those aspects as well Glen with the TIA. The only comment I would make is with what we are learning now in 800 and 700 without some kind of solution here, it is going to be difficult for system designers and manufacturers come up with 90 guarantees or whatever. So it is going to make life thought unless you have some tools, like raising a signal strength or whatever. But it is not a simple issue. MR. NASH: Norm? MR. COLTRI: Norm Coltri, RCC Consultants.

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Basically what we are doing is masking a problem and

I really don't think masking is the right way to solve

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a problem. But, I think it is good if we can do some
further research into it. Also I think Michael
brought up a very good point that I think deserves
some additional consideration by the committee, about
the 700 band. And whether mixing technologies would
be causing the same type of problem. And I think that
is a definite possibility. That if we do get into a
situation where we are masking the signal levels by
having cellular type operations intermixed with noise
limited type of operations within the same segment of
the 700 band, public safety could be causing problems
to itself. And I think it might be something to look
at where we may suggest that the different
technologies start at different ends of the band and
move into the center. Rather than intermixing the
different technologies within the same band. I know
it was mentioned we have frequency coordination is
supposed to solve that problem, but, maybe taking a
proactive approach at the beginning by segregating the
technology at 700 may be a way to off set some of the
potential problems that might develop.

MR. NASH: Other comments? Norm, I

understand and I too have concerns about mixing technologies. I kind of have to fall back though on my experience in government of in trying to justify and get funding for a new system, and through the entire, if you will, life cycle of actually installing a new system. The money people want to have assurance that you have the spectrum in order to get the money and so you find yourself, first getting the spectrum, then getting the money. Then going out to bid, which defines the technology you are going to use. now puts you back in what you are suggesting of going back and asking for different spectrum because the technology isn't in the appropriate part of the band.

You know it is not going to be an easy thing to try to deal with. And certainly the frequency coordination issues in this band where we are looking at having some significantly different technologies is a new challenge for us. And I am not sure how to approach it.

MR. COLTRI: You are correct in your description of how things were done in the past. But I think the regional planning committees have to

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change a little bit of the way they are operating. I think there has to be some innovations. The original planning committee knows a block of spectrum that they have to work with and they know a certain number of channels are available for assignment in their area.

When an agency comes to them, they can block out a certain number of channels, not in any specific part of the band, but just in a number we will give such an agency five channels and they mark it in their book. And they keep track of those five channels, not is specific RF, but in channel blocks. Let the agency go through their procurement process, their fund acquisition process. Then come back to the committee later and say okay, I would like to turn these five channel blocks into RF frequencies. The committee now assigns the frequencies based on the technology.

So there is ways to work around this.

This is not the way we are normally doing business, but it is possible to make it work. This also gives the committee better control over the frequency because if an agency fails to get the funding or fails

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to procure the system, they haven't assigned an actual FCC license. It is being held at the committee level, not at the FCC level. And it is easier to do a take back. So there are a lot of pluses in doing it that way. But it does require more work on the part of the committee on more work on part of the database to maintain frequency blocks rather than actual RF channels.

MR. NASH: And David correct me, we sort of got into the discussion about 2 years ago when we were talking about receiver standards. And one of the things that we came up with, was well, it didn't seem to make a lot of difference because the transmitter standard was a -- as to the amount of noise that could be put into the adjacent six and quarter kilohertz And so the receiver standard wasn't channel. critical because the burden placed was on the transmitter regardless of what type of modulation or band width it had. Is that a correct recollection?

I am looking at David Eierman here who is trying to think back two years.

MR. BUCHANAN: I'll throw in mine. My

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understanding is that TSB 88 process takes care of 2 issues of different, it defines the needed for the different types of technology. So it becomes a mute issue. But TSB 88 requires you now to MR. NASH: go back. In order to implement TSB 88, you have to the technology is in each of the what channels that are being considered. MR. BUCHANAN: Right. NASH: Which gets us back into this problem of the reality of how public safety systems 12 are funded, designed and implemented. Norm Coltri again. MR. COLTRI: seeing with the biggest problems we are the 800 interference is not as much out of band is it is Where a receiver moves into receiver overload. area which is very close to one of the cell sites. Tt. is pumping out a lot of RF to get coverage into the

> That type of interference is going to be present no matter what we look at as far as, we could

> immediate vicinity, the receiver looses sensitivity

because of front end overload.

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be megahertz away and still have receiver front end overload. So it is not something that we are going to be able to do an analysis of that site based upon the TSB 88. Because we are looking at a system that is not specific to an RF frequency, but to a general overload of a multitude of RF channels at a specific site putting out a lot of RF power. And having those sites dotted all over the coverage area of a noise limited system.

And if we have that same thing in public safety, where we have a cellular type of system, for example, a city has a cellular type of system. They put in a TETRA type system. And they populate that city with maybe 50 or 60 sites. Each one covering a radius of two or three miles with a lot of RF to get in building coverage. And now the county has a noise limited system. Well every time one of the county cars is in the city and passes one of those city cites, it is going to have front end overload. And the only way to really get away from that is to have the system separated by enough frequency separation so that we don't have that problem. And I am thinking

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that if we start at the each end of the band, we would at least have a shot of doing that. Without having the technology separate it, intermixing the technology, the overload is going to be there.

MR. BUCHANAN: That's getting away --

MR. NASH: Yes, it's getting away from the question here. Any other questions or any other Kind of what I gathered is the, you know, the consensus, short answer here. It is not a simple Raising the received signal level is going to resolve our interference problems. There are several factors that must be balanced. Nonetheless on the surface, it does not appear to offer a significant advantage in the operation of public safety systems. And that at this point we recommend referring it to TIA for technical review and comment. Is that the general? Can I get clear consensus on --

MR. SCHLIEMAN: Yes, and I would add also in addition to the analysis include impact on public safety. In the larger sense of how much more is going to be required in siting and so on, costs.

MR. LELAND: Cost you can't do, a number

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1 of sites and things we can't do. 2 okay, so if the analysis MR. NASH: 3 included discussion of the impact of the design of 4 public safety systems? 5 Why don't you also add Glen MR. LELAND: 6 to the completed prior to the next NCC meeting in 7 September. That is fine by me. 8 MR. NASH: 9 included, report to be submitted on or before the --Any other additions to the consensus opinion? 10 11 Okay, I will declare consensus opinion reached. will report so to the Steering Committee tomorrow. 12 13 Actually we have gotten quite a bit accomplished here 14 in our hour so far. That was the main three things that I had on my list of things for this committee to 15 16 deal with. Are there other items to be discussed? 17 will reiterate t.hat. there was а 18 gentlemen contacted me from a company that wanted to 19 make a presentation about new technology. He said he 20 was going to be here at this meeting. Well he might 21 here a little late, Teddy we might have so.

somebody you wants to make a presentation during your

meeting. Would that, I guess we will look at adjourning this meeting.

MR. EIERMAN: During the, just one little quick comment, during the PSWC Project, many years ago, some of us were daring enough to suggest that with all the reforming. We look at eventually moving public safety to one continuous piece of spectrum. You didn't care where, we just discussed that. And of course we got representatives from the state of Montana that still didn't want to give up their low band systems because they put that power up in the middle of the state and they were covered.

They were very happy. The guys form New York city were screaming and yelling and saying no, we can't use low band. We couldn't even get public safety to agree to be in one band. So, it is a very aggressive. My only feeling is I don't know how we are going to get us to agree to move into one band, let along FCC or anyone else.

(Whereupon, the hearing in the aboveentitled matter was concluded at 3:14 p.m.)